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EXAMINER	
COOLEY, CHARLES E	
ART UNIT	PAPER NUMBER
1723	5

DATE MAILED: 08/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/873,209

Applicant(s)  
Engel

Examiner  
Charles Cooley

Art Unit  
1723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## OFFICE ACTION

1. This application has been assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

a. Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

b. Telephone inquiries regarding this application should be directed to the Technology Center 1700 receptionist at ☎(703) 308-0651 or to the Examiner at ☎(703) 308-0112. Official facsimile correspondence filed before a final office action should be transmitted to ☎(703) 872-9310. Official facsimile correspondence which responds to a final office action should be transmitted to ☎(703) 872-9311. All *post-allowance* papers (e.g., Information Disclosure Statements, Rule 312 Amendments, petitions, etc.) should be mailed to **Box Issue Fee** or submitted via facsimile to ☎(703) 308-5864.

c. Inquiries regarding application status, matching responses with applications, patent term questions, locating and retrieval of applications, incomplete office actions, requests for copies of office actions and/or references, requests to remail office actions, small/large entity status, or other administrative inquiries should be directed to the **Technology Center 1700 Customer Service Center** at ☎(703) 306-5665.

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### ***Drawings***

2. Applicant should verify that (1) all reference characters in the drawings are described in the detailed description portion of the specification and (2) all reference characters mentioned in the specification are included in the appropriate drawing Figure(s) as required by 37 CFR 1.84(p)(5).

### ***Specification***

3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The Abstract of the Disclosure is objected to because:

a. Line 1: it appears "ha" should be --has--.

b. it lacks substance as it is not an adequate and clear statement of the contents of the disclosure. A reading of the abstract does not provide the character of the subject matter covered by the disclosure. The abstract should be more comprehensive of the disclosed subject matter by mentioning the tapered roller bearings.

Correction is required. See MPEP § 608.01(b).

5. The title is acceptable.

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***Claim Rejections - 35 U.S.C. § 112, second paragraph***

6. Claims 1-20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The second paragraph of 35 USC 112 requires a claim to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Under *In re Hammack*, 166 USPQ 204 (CCPA 1970) and *In re Moore*, 169 USPQ 236 (CCPA 1971), claims must be analyzed to determine their metes and bounds so that it is clear from the claim language what subject matter the claims encompass. This analysis must be performed in light of the applicable prior art and the disclosure. The definiteness of the claims is important to allow others who wish to enter the market place to ascertain the boundaries of protection that are provided by the claims. *Ex parte Kristensen*, 10 USPQ 2d 1701, 1703 (BPAI 1989). The pending claims fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention and are therefore of indeterminate scope for the following reasons:

7. In the instant application, it appears that the preamble of claims 1-20 set forth that a subcombination of the assembly is being claimed and the vessel wall is only functionally recited. The scope of the claims is clear as long as no further mention of the vessel wall appears in the claims, or the bodies of the claims refer to the vessel wall in a functional manner. A question arises as to whether the claims recite a combination

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or subcombination when the vessel wall is positively recited within the bodies of the claims wherein an inconsistency develops in the claims. The preamble indicates a subcombination of the assembly, while in the bodies of one or more claims, there is at least one occurrence of a positive recital of structure indicating that the combination of the assembly and vessel wall is being claimed. It is not clear if Applicant's intent is to claim merely the assembly or the assembly in combination with the vessel wall.

Claims 1-20 are therefore inconsistent and indefinite because the preambles of the claims recite the subcombination (the assembly) for use with the combination (the assembly in combination with the vessel wall) yet the elements of the assembly and vessel wall are claimed in structural combination in the bodies of the claims. If the elements of the invention are claimed in combination in the bodies of the claims, the preambles must also claim them in combination or the subject matter of the preambles would not be considered consistent with limitations recited in the bodies of the claim rendering the scope of the claims indefinite. In the instant case, it is not clear as to whether the claims are intended to be combination claims of the assembly *and* vessel wall or intended to be subcombination claims of the assembly only. The question has arisen based on the present claiming of "a support mounted to the vessel wall" (claim 1 and similar wording in claim 11) and "a base that is attached to the vessel wall" (claim 17). Accordingly, it appears that there is at least one occurrence of a positive recital of

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structure indicating that the combination of the assembly and vessel wall is being claimed which renders the scope of the claims indefinite.

Claim 6: "the support structure" and "the seal ring" lack antecedent basis.

Claim 7: "the base" lacks antecedent basis.

Claim 8: "the base" lacks antecedent basis. This claim also appears redundant of claim 7.

Claim 13, line 1: "the tapered roller bearing" is referring to which one of the tapered roller bearings of claim 12?; in lines 2-3, does "a second tapered roller bearing" have any relationship to the second tapered roller bearing of claim 12?

Claim 16, lines 2 and 3: "the seal ring" lacks antecedent basis. The claim is awkwardly worded - compare to claim 6.

Claim 19: "the first and second bearings" lacks antecedent basis.

Claim 20: "the support", "the seal", and "the bearings" all lack antecedent basis.

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8. Each pending claim should be thoroughly reviewed such that these and any other informalities are corrected so the claims may particularly point out and distinctly claim the subject matter which applicant regards as the invention, as required by 35 U.S.C. § 112, second paragraph.

***Claim Rejections - 35 U.S.C. § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-8, 10-18, and 20-22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lake (USP 2,867,997).

The patent to Lake (USP 2,867,997) discloses a shaft 6; a support 4 including a first base portion 11 supporting a seal 14 and a second support portion with a housing 4 attached to the base and supporting axially spaced tapered roller bearings 19 and 20; the support, seal, and bearings being removable; the seal 14 sealing around the shaft 6; and the shaft 6 being supported to resist loads at axially spaced locations by the bearings 19 and 20.

11. Claims 1, 6-11, and 16-22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Maynard (USP 3,887,169).



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The patent to Maynard (USP 3,887,169) discloses a shaft 21; a support including a first base portion 13, 30 supporting a seal 32 and a second support portion with a housing 27 attached to the base and supporting axially spaced bearings 49 and 50; the support, seal, and bearings being removable; inner bearing housing 44 that surrounds a portion of the shaft 21 and is mounted to the bearings 49 and 50; the seal 32 sealing around the shaft 21; and the shaft 21 being supported to resist loads at axially spaced locations by the bearings 49 and 50.

12. Claims 1-8, 10-18, and 20-22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Umstattd (USP 2,034,545).

The patent to Umstattd (USP 2,034,545) discloses a shaft 2; a support including a first base portion 1 supporting a seal (proximate 2) and a second support portion with a housing (proximate 3) attached to the base and supporting axially spaced tapered roller bearings 5; the support, seal, and bearings being removable; the seal sealing around the shaft 2; and the shaft 2 being supported to resist loads at axially spaced locations by the bearings 5.

***Claim Rejections - 35 U.S.C. § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 9 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lake (USP 2,867,997) or Umstattd (USP 2,034,545) in view of Blakley et al. (USP 5,568,975).

Lake (USP 2,867,997) or Umstattd (USP 2,034,545) do not disclose the inner bearing housing. Blakley et al. (USP 5,568,975) discloses a shaft 12; axially extending bearing 20 and an inner bearing housing 14 that surrounds a portion of the shaft 12 and is mounted to the bearing 20. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the devices of Lake (USP 2,867,997) or Umstattd (USP 2,034,545) with an inner bearing housing as disclosed by Blakley et al. (USP 5,568,975) for the purpose of providing the shaft with a wear sleeve to protect the shaft (Col. 4, lines 8-22).

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The cited prior art discloses shaft support assemblies with seals and bearing arrangements.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Charles Cooley whose telephone number is ☎ (703) 308-0112.

17. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1700 receptionist whose telephone number is ☎ (703) 308-0651.

Dated: **21 August 2002**

A handwritten signature in black ink, appearing to read "Charles Cooley", written over a horizontal line.

**Charles Cooley**  
**Primary Examiner**  
**Art Unit 1723**